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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,918	06/07/2001	Robert Drew Major	112024-0062C1	4229
21186	7590	06/03/2004	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			MCLEAN MAYO, KIMBERLY N	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/877,918	<b>Applicant(s)</b> MAJOR ET AL.	
	<b>Examiner</b> Kimberly N. McLean-Mayo	<b>Art Unit</b> 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-16 and 19 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/27/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. The enclosed detailed action is in response to the Information Disclosure Statements and the Application submitted on June 7, 2001.

#### *Priority*

2. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 120.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5, 7, 10-12, 14, 16 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Jordan et al. (USPN: 6,439,652).

Regarding claims 1, 7, 10, 16 and 19, Jordan discloses a plurality of proxy cache servers for caching and vending objects from a storage location to a requesting client through an interconnected load-balancing mechanism adapted to selectively provide client requests to each of the plurality of proxy cache servers based upon load balance considerations (Figure 1, Reference 150; C 5, L 29-32, L 42-46); a network segment interconnecting each of the proxy cache servers so as to enable data to pass between the proxy cache servers (Figure 1, Reference 140; C 5, L 34-37); and a mechanism in each server of the plurality of proxy cache servers adapted to (a) receive a request for an object from the load balancing mechanism (C 7, L 23-26),

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(b) identify a discrete server of the plurality of proxy cache servers that is designated to contain the object based upon an address of the object (C 7, L 29-30, L 32-35; claims 7 and 16), (c) referring the request to the discrete server and (d) return the object from the discrete server to the server receiving the request from the load-balancing mechanism for vending to the client (C 7, L 32-35). Additionally regarding claim 19 refer to (C 9, L 46-52).

Regarding claims 2 and 11, Jordan discloses the mechanism including means to refer the request over the network segment (forwarding request) unless the discrete server and the receiving server are identical (when the request can be serviced by the receiving proxy cache server), whereby the request is optimally processed by on the receiving server (C 7, L 26-29, L 32-35).

Regarding claims 3 and 12, Jordan discloses the mechanism including means for performing a hash function on the address in the object (C 8, L 14-28).

Regarding claims 5 and 14, Jordan discloses the load balancing mechanism comprising a network switch interconnected to the proxy cache servers (interface logic within the load balancing monitor which connects (directly or indirectly) to the proxy cache servers.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (USPN: 6,439,652) in view of Muller et al (USPN: 6,016,310).

Jordan does not disclose the mechanism including a means for performing modulo function on a hash of the address with respect to a number of proxy cache servers in the plurality of proxy cache servers. However, Muller teaches the concept of hashing using a modulo operation which provides a means for efficient hashing (C 11, L 18-58). Hence, it would have been obvious to one of ordinary skill in the art to use this feature in the system taught by Jordan for the desirable purpose of efficiency.

7. Claims 6 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (USPN: 6,439,652)

Jordan does not disclose tunneling an object through the server to the to the load balancing mechanism. However, the concept of tunneling is well known for providing secure transfers of data between two devices. Hence, it would have been obvious to one of ordinary skill in the art.

***Allowable Subject Matter***

8. Claims 8-9 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

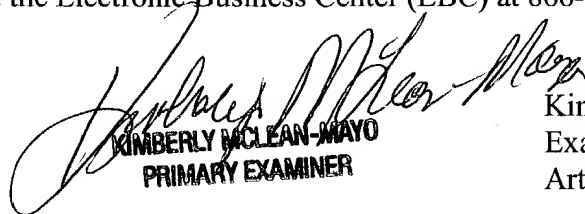
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***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly N. McLean-Mayo whose telephone number is 703-308-9592. The examiner can normally be reached on M-F (9:00 - 6:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 703-308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KIMBERLY MCLEAN-MAYO  
PRIMARY EXAMINER

Kimberly N. McLean-Mayo  
Examiner  
Art Unit 2187

KNM

May 25, 2004